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TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No. ITL.1105US

In Re Application Of: **Tom E. Pearson, et al.**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
10/814,528	March 31, 2004	Vanessa Mary Girardi	21906	2833	6903

Invention: **Infrared Transmissive Integrated Circuit Socket Cap**

COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on **June 5, 2006**

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Dated: **July 11, 2006**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:	Tom E. Pearson, et al.	Art Unit:	2833
Serial No.:	10/814,528	Examiner:	Vanessa Mary Girardi
Filed:	March 31, 2004	Atty Docket:	ITL.1105US (P18745)
For:	Infrared Transmissive Integrated Circuit Socket Cap	Assignee:	Intel Corporation

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APPEAL BRIEF

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Nancy Meshkoff

TABLE OF CONTENTS

REAL PARTY IN INTEREST

The real party in interest is the assignee Intel Corporation.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims 1-25 (Rejected).

Claims 1-25 are rejected and are the subject of this Appeal Brief.

STATUS OF AMENDMENTS

All amendments have been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

In the following discussion, the independent claims are read on one of many possible embodiments without limiting the claims:

1. An integrated circuit socket comprising:

a socket housing (Figure 1, 28, specification at page 4, lines 4-6);

a hinged cover (Figure 2, 14) secured to said housing (specification at page 4, lines 8-10); and

an infrared transmissive cap (Figure 1, Figure 2, 24) removably secured to said cover (specification at page 4, line 18-page 5, line 3).

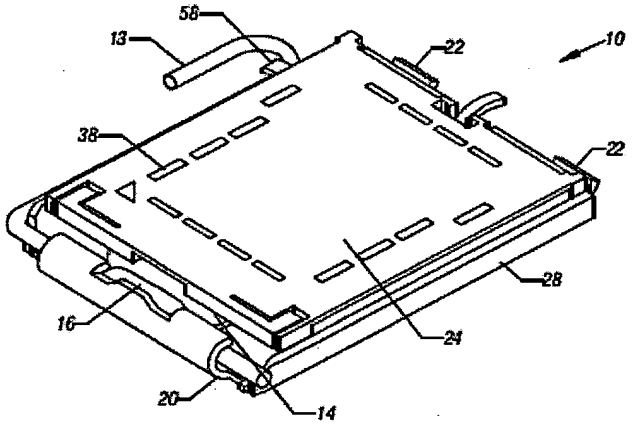

FIG. 1

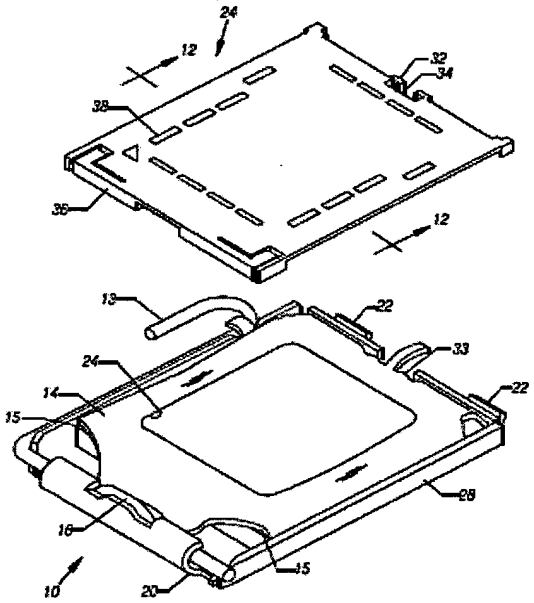

FIG. 2

11. A cap for an integrated circuit socket (Figure 2, 10) comprising:

a body (Figure 2, 24) having apertures (Figure 1, 36) therethrough, said body formed of a material that is infrared transmissive (specification at page 4, line 18-page 5, line 3); and

tabs (Figures 2-7, 32) coupled to said body to removeably secure said body to an integrated circuit socket (specification at page 6, lines 5-22).

21. A method comprising:

securing an infrared transmissive cap (Figures 1, 2, 24) to an integrated circuit socket (Figure 2, 10);

exposing said cap and said socket to infrared energy (Figure 9, page 7, lines 17-26); and

surface mounting said socket to a printed circuit board (Figure 10, 50, specification at page 7, lines 20-26).

At this point, no issue has been raised that would suggest that the words in the claims have any meaning other than their ordinary meanings. Nothing in this section should be taken as an indication that any claim term has a meaning other than its ordinary meaning.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. **Are claims 1-5, 8-14, 17-23, and 25 unpatentable over Liao in view of Ciambrone and Edwin?**

ARGUMENT

A. Are claims 1-5, 8-14, 17-23, and 25 unpatentable over Liao in view of Ciambrone and Edwin?

Claim 1 calls for an infrared transmissive cap removably secured to a hinged cover on a socket housing. The cap may protect the socket prior to integrated circuit installation while facilitating surface mounting of the socket to a printed circuit board. Infrared radiation from a surface mount oven passes through the cap to heat the socket (rather than the cap) so that the socket is thereby soldered to the printed circuit board.

It is conceded that neither Liao or Ciambrone teach an infrared transmissive cap for an integrated circuit. It is suggested that somehow this deficiency is cured by Edwin's teaching of the adverse effects of infrared reflow ovens on printed circuit boards, suggesting that Edwin gives reasons why one would minimize the amount of time a component is exposed to such heat. But, certainly, nothing in Edwin contemplates or suggests in any way the use of an infrared transmissive cap for this purpose.

Moreover, no reference suggests using an infrared transmissive member of any type to reduce the amount of time that a product would be maintained within an oven. The asserted rationale for the combination of producing an integrated circuit that sees one hundred percent of the heat generated by the IR over is nowhere suggested in the prior art. In other words, the prior art does not tell you that the way to reduce the amount of time a component is exposed to heat is to enable the integrated circuit to see one hundred percent of the heat generated by the IR oven. Moreover, nothing in the prior art suggests that one way to enable the element to see one hundred percent of the heat generated is to use an infrared transmissive cap.

The fact of the matter is that nothing in the prior art suggests any reason to use an infrared transmissive cap on an integrated circuit board in particular. A teaching that it is good to reduce the amount of time of exposure, teaches reducing the amount of time of exposure, not using an infrared transmissive cap.

Applicant respectfully requests that each of the final rejections be reversed and that the claims subject to this Appeal be allowed to issue.

Respectfully submitted,

Date: July 11, 2006

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CLAIMS APPENDIX

The claims on appeal are:

1. An integrated circuit socket comprising:
a socket housing;
a hinged cover secured to said housing; and
an infrared transmissive cap removably secured to said cover.

2. The socket of claim 1 wherein said cap includes a plurality of openings formed through the cap to allow the passage of heated air.

3. The socket of claim 1 including spring catches on opposed ends of said cap to removeably secure said cap to said cover.

4. The socket of claim 1 wherein said cap transmits at least 80 percent of incident infrared radiation.

5. The socket of claim 4 wherein said cap transmits at least 95 percent of incident infrared radiation.

6. The socket of claim 1 wherein said cap is formed of plastic.

7. The socket of claim 6 wherein said cap is formed of translucent red plastic.

8. The socket of claim 1 wherein said cap includes standoffs to space said cap from said cover.

9. The socket of claim 1 wherein said cap has a curved lower surface.

10. The socket of claim 1 wherein said cap includes at least two apertures and downwardly extending prongs extending away from said apertures to reflect incident radiation passing through said apertures.

11. A cap for an integrated circuit socket comprising:

a body having apertures therethrough, said body formed of a material that is infrared transmissive; and

tabs coupled to said body to removeably secure said body to an integrated circuit socket.

12. The cap of claim 11 wherein said tabs include spring catches on opposed ends of said cap to removeably secure said cap to said socket.

13. The cap of claim 11 wherein said cap transmits at least 80 percent of incident infrared radiation.

14. The cap of claim 13 wherein said cap transmits at least 95 percent of incident infrared radiation.

15. The cap of claim 11 wherein said cap is formed of plastic.

16. The cap of claim 15 wherein said cap is formed of translucent red plastic.

17. The cap of claim 11 wherein said cap includes standoffs to space said cap from said socket.

18. The cap of claim 11 wherein said cap has a curved side.

19. The cap of claim 11 wherein said apertures include downwardly extending prongs to reflect infrared radiation passing through said apertures.

20. The cap of claim 11 wherein said cap includes guides to guide said cap into alignment with said socket.

21. A method comprising:

securing an infrared transmissive cap to an integrated circuit socket;

exposing said cap and said socket to infrared energy; and

surface mounting said socket to a printed circuit board.

22. The method of claim 21 including exposing said cap and said socket to a surface mount reflow oven producing both infrared and convective heating.

23. The method of claim 21 including allowing heated air to circulate through said cap via apertures through said cap.

24. The method of claim 21 including providing an apertured, red plastic, infrared transmissive cap on said socket.

25. The method of claim 21 including enabling at least 80 percent of the infrared incident energy to pass through said cap to said socket.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.